

Table 1 Pattern of distant failure in AC and SCC

| | ICDM | ECDM | Total |
|-------------|------------|------------|-------|
| AC | 18 (37.5%) | 30 (62.5%) | 48 |
| SCC | 2 (10.5%) | 17 (89.5%) | 19 |
| Total of DM | 20 | 47 | 67 |

Results: Patients received sequential (n=49, 32%) or concomitant (n=93, 60%) chemo-radiotherapy. Eleven patients received radiotherapy alone. Competing risks analysis found a significantly higher rate of ICDM in the AC group compared to SCC ($p=0.0004$) but no significant difference in incidence of ECDM ($p=0.08$). LR failure was higher in SCC than in AC ($p=0.01$). There was no significant difference between the two histology groups in the proportion dying without evidence of disease ($p=0.3$), see Figure. Restricting the analysis to patients with distant metastases as first site of failure, there was a significantly higher rate of cerebral metastases in AC than in SCC ($p=0.04$), cf. Table 1.

Conclusion: The pattern of first failure in inoperable NSCLC differs among patients with AC and SCC with intra-cranial distant metastases being more common in AC than in SCC and LR relapse being much more frequent in SCC than in AC. Experimental treatment strategies should be targeting different relapse patterns in various histological subtypes. Intensification of local therapy for example may yield a worse risk/benefit ratio in AC compared to SCC.

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Clinical outcomes of stereotactic ablative radiotherapy in pulmonary oligometastases

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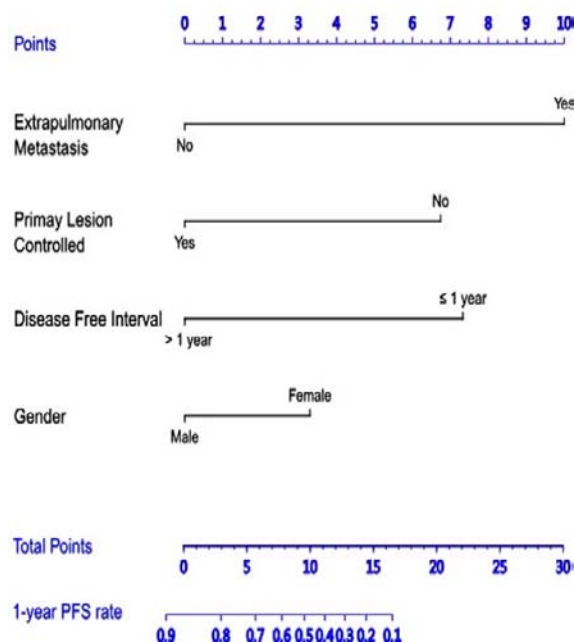
Purpose or Objective: In addition to its curative use in early stage lung cancer, stereotactic ablative radiotherapy (SABR) can also potentially be indicated for pulmonary oligometastatic disease. This study aims to retrospectively analyze treatment outcomes and develop nomograms to predict survival.

Material and Methods: From September 2012 to April 2015, treatment outcomes and toxicities for 85 cases of SABR in 72 patients retrospectively reviewed. Prognostic factors were analyzed via multivariate analyses using Cox proportional hazards regression. Using factors that demonstrated to be significant in the Cox regression model, nomograms were constructed and validated internally.

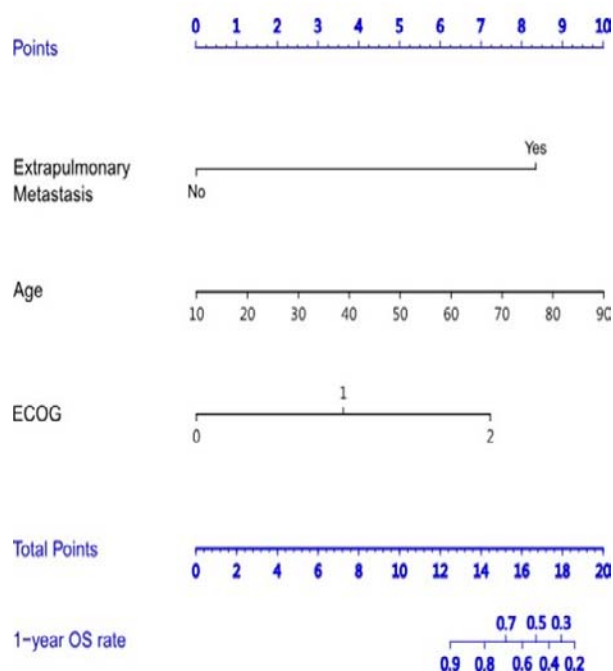
Results: After a median follow-up of 15 months, only 1 patient showed local failure within the radiation field. The local failure-free survival (LFFS) rate at 2 years was 98%. The 1-year and 2-year progression-free survival (PFS) and overall survival (OS) rates were 62% and 48%, and 90% and 72%, respectively. Multivariate analyses demonstrated that controlled primary cancer ($p=0.01$), absence of extrapulmonary metastatic disease ($p=0.03$), and disease-free interval (DFI) longer than 1 year ($p<0.01$) favorably affects PFS. Furthermore, the absence of extrapulmonary metastatic disease ($p<0.01$) and lower performance status ($p=0.03$) increased OS as well. In terms of internal validation, nomograms for PFS and OS revealed C-index of 0.75 and 0.81, and showed a well-fitted calibration curves, respectively. Grade 1 or 2 radiation pneumonitis was found in

37 cases, and grade 1 chest wall pain was found in 1 case. Any grade 3 or higher toxicities were not identified.

Nomogram for PFS



Nomogram for OS



Conclusion: SABR demonstrated good local control with tolerable adverse effects for pulmonary oligometastases. Several factors were predictive for survival. Based on these factors, nomograms presented in this study can potentially be a useful tool for the prediction of progression-free and overall survival rates.

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Proton and Carbon ion for stage I non-small cell lung cancer: a meta analysis

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